Name: _____ Class: _____Due Date: _____

When solving the following problem, be sure to:

1) **Restate the <u>question</u>**
2) **State your <u>answer</u> in a complete sentence.**
3) **<u>List</u> facts and important information**
4) **<u>Explain</u> your solution strategy and include your <u>calculations</u>/work.**

Can You Find My Numbers?

I have eight numbers in my list. Use the clues to find my numbers.

- The **range** of the numbers in my list is 93.
- One of my numbers is an **abundant number** between 21 and 25.
- One of the numbers in my list is a **cube number** less than 10.
- The **average (arithmetic mean)** of the numbers in my list is 40.
- The **mode** of the numbers in my list is the sum of the first two **perfect numbers**.
- The **median** of the numbers in my list is 29.5.
- The largest number in my list is the smallest 3-digit **palindrome**.
- The **sum** of the digits of one of the numbers in my list is equal to the square root of the same number.
- Two of the numbers in my list are **square numbers**.

You may not need all of the clues to find the answer, but make sure your answer fits all of the clues. After you have found my numbers, I want you to tell me how you found them. I will not accept guess and check or trial and error as the reason this week.

If you need help with the definitions, try Ask Dr. Math's <u>Frequently Asked Questions (FAQ)</u> or <u>search Dr. Math's archive.</u> Good Luck.

Please answer the problem on a separate piece of paper. You must include all your calculations and an explanation of how you got your answer. Your paper will be scored in the following way:
- 4 The answer and the bonus are correct, you have included all your calculations, and the explanation is thorough and understandable. You are correct, there is no bonus. Therefore you will earn a 4 if you have an excellent explanation that explains how you calculated each number.
- 3 The answer is correct, you have included all your calculations, and the explanation is complete and clear to the reader.
- 2 The answer is missing one of the items mentioned above.
- 1 The answer is incorrect, and the explanation or calculations are poor or missing.
- 0 Minimal or no effort was made to solve the problem.
- All late work is marked down a grade.